

REMARKS

After entry of this Amendment, claims 1, 3-9, 12-13, 15-16, 37, 39-40, 46-47, 49-50, 52 and 58 are pending in the application. Claims 3-9, 12, 37, 39-40, and 46 are withdrawn from consideration. Claims 2, 10-11, 14, 17-36, 38, 41-45, 48, 51, 53-57, and 59 have been cancelled without prejudice. Claims 1, 13, 47, 49, and 58 have been amended to more particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims have been amended to refer to a frame and die support kit with die supports for operating in a low speed mode of operation below 600 feet per minute. The intent is to claim a frame structure capable of employing different die support sets, where the die support kit is initially configured and sold with a single die support set for operating in a low speed mode of operation below 600 feet per minute. Reconsideration of the Examiner's rejection is requested.

In the office action dated July 6, 2006, claims 1, 13, 16-17, 47, 49, 53-54, and 59 stand rejected under 35 U.S.C. §102(b) as being anticipated by Gautier (U.S. Pat. No. 4,770,078), or under 35 U.S.C. §103(a) as being obvious over Gautier '078 in view of Belongia (U.S. Pat. No. 4,553,461). It is submitted that the Gautier reference does not anticipate, teach or suggest the invention as recited in the pending claims. In particular, the Gautier '078 does not anticipate, teach or suggest a frame for a low speed mode of operation below 600 linear feet per minute in combination with a die support kit operably engagable with the frame, where the die support kit for low speed mode of operation includes a first modular die support with each roller mounted directly to the base and spaced from the columns as recited in the pending claims, such as claim 1. The first modular die support maintains the first rotary die in three dimensions: namely vertically, horizontally in an axial direction with respect to the axis of rotation and horizontally in a transverse direction with respect to the axis of rotation. The Gautier '078 references teaches bearings 3,4 supported by (not spaced from) the columns of frame 7 (column 3, lines 19-20), and does not suggest a first modular die support with each roller mounted directly to the base and spaced from the columns for maintaining the first rotary die in a stationary rotary position,

i.e. three dimensional support (x-y-z planes), as recited in the claims. The addition of the Belongia '461 reference taken singularly or in any permissible combination with Gautier '078 does not overcome these deficiencies in the Gautier '078 reference. At best, the Belongia '461 reference teaches frame structure 4 supporting bearings 14, 15 for rolls 2, 3 (column 4, lines 2-5). The bearing units 14, 15 are mounted within frame 4 to permit the relative movement of the bearing units for gap adjustment. (column 4, lines 41-43). Therefore, the Belongia reference teaches away from modular die supports mounted directly to the base and/or the stationary rotary position configuration as recited in the pending claims and cannot be properly combined with the Gautier reference as suggested by the Examiner in formulating a rejection under 35 U.S.C. §103(a). Reconsideration of the Examiner's rejection of claim 1 is requested.

With respect to claim 13, the Gautier '078 reference does not anticipate, teach, or suggest the improvement of a frame for a low speed mode of operation below 600 linear feet per minute in combination with a die support kit for low speed operation. The die support kit for low speed mode of operation consisting of a first modular die support and a second modular die support, the first modular die support having first and second bearings spaced longitudinally from one another and mounted directly to the base in locations spaced from the columns, each bearing having at least two rollers, each bearing in operable engagement with a raised radial flange associated with one of the first and second ends of the first rotary die to limit linear translation of the first rotary die along the first axis of rotation, and the second modular die support having a first and second bearings, each bearing spaced from one another longitudinally and mounted to the cross members as recited in claim 13. The Gautier '078 reference teaches that bearing 4 primarily will be resisting horizontal forces perpendicular to the plane of the axes 1A and 2A (column 3, lines 34-38), and does not suggest the use of a raised radial flange on the first rotary die to eliminate the need for the bearing 4. The addition of the Belongia '461 reference taken singularly or in any permissible combination with Gautier '078 does not overcome these deficiencies in the Gautier '078 reference. At best, the Belongia '461 reference

teaches frame structure 4 supporting bearings 14, 15 for rolls 2, 3 (column 4, lines 2-5). The bearing units 14, 15 are mounted within frame 4 to permit the relative movement of the bearing units for gap adjustment. (column 4, lines 41-43).

Therefore, the Belongia reference teaches away from modular die supports mounted directly to the base in locations spaced from the columns and/or the stationary rotary position configuration with a raised radial flange associated with one of the first and second ends of the first rotary die to limit linear translation of the first rotary die along the first axis of rotation as recited in the pending claims and cannot be properly combined with the Gautier reference as suggested by the Examiner in formulating a rejection under 35 U.S.C. §103(a). Reconsideration of the Examiner's rejection of claims 13 and 16.

With respect to claim 47, the Gautier '078 reference does not anticipate, teach, or suggest a frame for a low speed mode of operation below 600 linear feet per minute in combination with a die support kit for low speed operation. The die support kit including a first modular die support for low speed operation mounted to the base spaced from the columns in rolling engagement with the first rotary die, the first modular die support maintaining the first rotary die in a stationary rotary position with respect to the base, and a second modular die support for low speed operation mounted to the cross member spaced from the columns in rolling engagement with the second rotary die to maintain the second rotary die in a stationary rotary position in a horizontally transverse direction with respect to the second axis of rotation as recited in claim 47. The Gautier '078 reference teaches bearings 3,4 supported by (not spaced from) the columns of frame 7 (column 3, lines 19-20), and does not suggest the first modular die support maintaining the first rotary die in a stationary rotary position as recited in claim 47. The addition of the Belongia '461 reference taken singularly or in any permissible combination with Gautier '078 does not overcome these deficiencies in the Gautier '078 reference. At best, the Belongia '461 reference teaches frame structure 4 supporting bearings 14, 15 for rolls 2, 3 (column 4, lines 2-5). The bearing units 14, 15 are mounted within frame 4 to permit the relative movement of the bearing units for gap adjustment. (column 4, lines 41-43).

Therefore, the Belongia reference teaches away from modular die supports mounted directly to the base and/or the stationary rotary position configuration as recited in the pending claims and cannot be properly combined with the Gautier reference as suggested by the Examiner in formulating a rejection under 35 U.S.C. §103(a). Reconsideration of the Examiner's rejection of claims 47, and 49 is requested.

With respect to claim 58, the Gautier '078 reference does not anticipate, teach, or suggest a frame for a low speed mode of operation below 600 linear feet per minute in combination with a die support kit for low speed mode of operation including a first modular die support consisting of a first bearing member and a second bearing member, each bearing member of the first modular die support including at least two rollers maintaining the first rotary die in a stationary rotary position through operable engagement of the rollers with raised radial flanges located on opposite longitudinal ends of the first rotary die, and a second modular die support consisting of a first bearing member and a second bearing member, each bearing member of the second modular die support including at least two rollers maintaining the second rotary die in a stationary rotary position through operable engagement of the raised radial flanges located on opposite longitudinal ends of the first rotary die with the longitudinal ends of the second rotary die as recited in claim 58. The Gautier '078 reference teaches rollers 13,16 and bearings 3,4 supported by (not spaced from) the columns of frame 7 (column 3, lines 19-20), and does not suggest supporting the first and second rotary dies in three dimensional stationary rotary positions by operable interaction between the first and second modular die supports consisting of first and second bearing members as recited in claim 58. The Gautier '078 reference teaches that bearing 4 primarily will be resisting horizontal forces perpendicular to the plane of the axes 1A and 2A (column 3, lines 34-38), and does not suggest the use of a raised radial flange on the either rotary die to eliminate the need for the bearing 4. The addition of the Belongia '461 reference taken singularly or in any permissible combination with Gautier '078 does not overcome these deficiencies in the Gautier '078 reference. At best, the Belongia '461 reference teaches frame structure 4 supporting bearings 14, 15 for rolls 2,3 (column 4, lines 2-

5). The bearing units 14, 15 are mounted within frame 4 to permit the relative movement of the bearing units for gap adjustment. (column 4, lines 41-43).

Therefore, the Belongia reference teaches away from modular die supports mounted directly to the base and/or the stationary rotary position configuration as recited in the pending claims and cannot be properly combined with the Gautier reference as suggested by the Examiner in formulating a rejection under 35 U.S.C. §103(a).

Neither the Gautier reference nor the Belongia reference teaches or suggests, taken singularly or in any permissible combination, a first modular die support consisting of first and second bearing members, each bearing member including at least two rollers operable engaged with a raised radial flange located on either of the two opposite longitudinal ends of the first rotary die, and/or a second modular die support consisting of first and second bearing members, each bearing member including at least two rollers, wherein operable engagement between the raised radial flanges located on opposite longitudinal ends of the first rotary die with the longitudinal ends of the second rotary die maintains the second rotary die in longitudinal position along the axis of rotation. Reconsideration of the Examiner's rejection of claim 58 is requested.

Claims 1, 13, 15-17, 47, 49-50, and 52-59 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gautier '078 (as modified by the Examiner or not) in view of Kesten (U.S. Pat. No. 4,452,116). The Examiner asserts that it would have been obvious to one of ordinary skill in the art to have modified Gautier '078 by adding a radial flange to the dies that could laterally engage the bearings (13, 16) and the opposing die, as is generically known and made obvious by Kesten, in order to enhance longitudinal stability of the dies and thus make more accurate cuts in the workpiece. It is submitted that the combination of Gautier in view of Kesten fails to anticipate, teach or suggest the invention as recited in the pending claims. In particular, the Gautier '078 reference fails to meet the specific structural limitations recited in the claims as stated in detail above as if restated here in its entirety. The addition of Kesten '116 to the disclosure of Gautier '078 does not overcome these deficiencies in the Gautier '078 reference. At best, the Kesten '116

reference teaches a shaftless die roll 16, where bearings 76', 80' have flanges 88 to cooperatively support the die roll laterally and transversely. (column 7, lines 10-32 and column 7, line 60 – column 8, line 11). Accordingly, the addition of the Kesten '116 to Gautier '078 does not teach or suggest the specific structural configuration set forth in claims 1, 13, 15-16, 47, 49-50, 52, and 58. Reconsideration of the Examiner's rejection is requested.

A declaration under 37 C.F.R. §1.132 by Alan R. Pfaff accompanies this amendment to provide the Examiner with an explanation of the teachings of Gautier '078 and Kesten '116 as interpreted by one skilled in the art. As can be seen from a review of the attached declaration, the Gautier '078 and/or Kesten '116 references taken singularly or in any permissible combination, would not teach or suggest to one skilled in the art at the time the invention was made to use only roller bearings mounted to the base for supporting the die in a stationary rotary position, i.e. in three dimensions (x-y-z planes) as recited in independent claims 1 and 47, and/or in combination with a raised radial flange formed on opposite ends of the first rotary die (as recited in independent claims 13 and 58), and/or the use of flanges on the first rotary die to maintain the second rotary die in longitudinal position as recited in claim 58. Alan R. Pfaff specifically concludes that it is his opinion that the technical disclosure of Gautier '078 "is limited to, or requires the use of, one set of journal block bearings 3 and 4 on the drive side to restrain linear movement of the die rolls transverse to the rotational axes" (see Paragraph 22). Alan R. Pfaff further states that it is his "opinion that the Gautier device requires both the individual rollers 13 and 16 as well as the journal block bearings 3 and 4 and U-shaped frame as shown in Figure 2 to support and restrain the die rolls 1 and 2 in their operational position." (see Paragraph 22). Further, Alan R. Pfaff states that it is his opinion that "the Gautier patent relies exclusively on the journal block bearings 3 and 4 and the U-shaped frame to restrain the die rolls 1 and 2 from linear movement along the axis of rotation of the die rolls. With respect to the addition of the Kesten '116 reference, Alan R. Pfaff states that there "is no explanation or suggestion in the Gautier patent to use a different method or to employ the use of an annular flange on one of the die

rolls to restrain movement along the rotational axes.” (see Paragraph 25). An “addition of the Kesten circumferential flange 88 to the Gautier die rolls would provide little or no benefit and only add costs and needless complexity to the device” according to Alan R. Pfaff. (see Paragraph 25). Accordingly, in Alan R. Pfaff’s opinion as one skilled in the art, “it would not be obvious ... to add that Kesten feature to the Gautier device.” (see Paragraph 25). Alan R. Pfaff further points out that the combination of Gautier in view of Kesten does not anticipate, teach or suggest the use of annular flanges on the lower die roll serving a dual purpose in combination with the rollers 44, 48 to restrain both the lower die and, at the same time, the upper die roll along the rotational axes. (see Paragraph 26). These features are specifically set forth and claimed in the pending claims of the present application. The Examiner’s consideration of the Declaration under 37 C.F.R. §1.132 is requested.

It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner’s objections and rejections to the application as originally filed. It is further submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the application as amended is requested. It is respectfully submitted that this Amendment places the application in suitable condition for allowance; notice of which is requested.

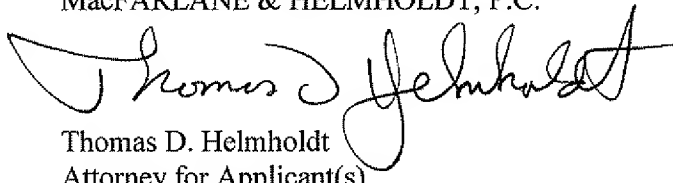
Application Serial No. 09/863,181
Dated: January 8, 2007
Reply to Office Action dated July 6, 2006

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If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Thomas D. Helmholdt", written over the printed name.

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Dated: January 8, 2007
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